



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,484	10/29/2003	John M. Smith III	2250-13A	6978
7590	08/25/2005		EXAMINER	
Howard A. MacCord, Jr. MacCord Mason PLLC 1600 Wachovia Tower 300 North Greene Street Greensboro, NC 27402			CAMERON, ERMA C	
			ART UNIT	PAPER NUMBER
			1762	
DATE MAILED: 08/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/696,484	SMITH ET AL.
	Examiner	Art Unit
	Erma Cameron	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 23-42 is/are pending in the application.
- 4a) Of the above claim(s) 25-29, 32, 35-39 and 41 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 23, 24, 30, 31, 33, 34, 40 and 42 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Election/Restrictions

1. Claims 25-29, 32, 35-39, and 41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/28/2005

2. Applicant's election with traverse of B), claim 31 and claim 40 in the reply filed on 7/11/2005 and 7/28/2005 is acknowledged. The traversal is on the ground(s) that there are not an unreasonable number of species. This is not found persuasive because not only are there major species in independent claim 42 – namely, antimicrobial, flame retardant, fluid repellent, and soil repellent, but within these there are species, as well as their being species of the fabric. It is the examiner's opinion that this constitutes an unreasonable number of species.

The requirement is still deemed proper and is therefore made FINAL.

Priority

3. This application filed under former 37 CFR 1.62 lacks the necessary reference to the prior application. A statement reading "This is a divisional of Application No. 09/965485, filed 9/27/2001, now U.S. Patent No. 6759127." should be entered following the title of the invention

or as the first sentence of the specification. Also, the current status of the parent nonprovisional application(s) should be included.

Response to Amendment

4. The amendment to the claims filed on 11/24/2003 does not comply with the requirements of 37 CFR 1.121(c) because

- a) a complete listing of all claims is missing. Claim 1-22 should be listed as (canceled).
- b) claim 28 is currently amended, not original.
- c) claim 42 should have been called (new). There is no such thing as a “reinstated claim”.

Amendments to the claims filed on or after July 30, 2003 must comply with 37 CFR 1.121(c) which states:

(c) *Claims.* Amendments to a claim must be made by rewriting the entire claim with all changes (e.g., additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) *Claim listing.* All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of “canceled” or “not entered” may be aggregated into one statement (e.g., Claims 1–5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

(2) *When claim text with markings is required.* All claims being currently amended in an amendment paper shall be presented in the claim listing, indicate a status of "currently amended," and be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. Only claims having the status of "currently amended," or "withdrawn" if also being amended, shall include markings. If a withdrawn claim is currently amended, its status in the claim listing may be identified as "withdrawn—currently amended."

(3) *When claim text in clean version is required.* The text of all pending claims not being currently amended shall be presented in the claim listing in clean version, i.e., without any markings in the presentation of text. The presentation of a clean version of any claim having the status of "original," "withdrawn" or "previously presented" will constitute an assertion that it has not been changed relative to the immediate prior version, except to omit markings that may have been present in the immediate prior version of the claims of the status of "withdrawn" or "previously presented." Any claim added by amendment must be indicated with the status of "new" and presented in clean version, i.e., without any underlining.

(4) *When claim text shall not be presented; canceling a claim.*

(i) No claim text shall be presented for any claim in the claim listing with the status of "canceled" or "not entered."

(ii) Cancellation of a claim shall be effected by an instruction to cancel a particular claim number. Identifying the status of a claim in the claim listing as "canceled" will constitute an instruction to cancel the claim.

(5) *Reinstatement of previously canceled claim.* A claim which was previously canceled may be reinstated only by adding the claim as a "new" claim with a new claim number.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 23-24, 30-31, 33-34, 40 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification contains two contradictory ideas.

- A) The first is that the finishing composition must contain a flame retardant. This is stated at:

a) 4:8 “The chemical treatment of the present invention comprises exposing the inherently FR textile material to an aqueous solution of a wetting agent and a flame retardant and one or more of: an antimicrobial agent, a water repellent agent, or a soil resistance agent...a flame retardant may be added to the chemical treatment composition to ensure that the inherent flame retardant remains chemically coupled with the polyester fiber”

b) The difference between Examples 1 and 2: Example 1 contains flame retardant, and the treated fabric passes the flammability test; Example 2 lacks flame retardant, and fails the flammability test.

c) 9:15-19 “...the inherently flame resistance properties of AVORA fabric degrade after a post-weave chemical treatment. However, the present inventor has found if a flame retardant is added during the chemical treatment coating process, the fabric retains a flame resistance substantially similar to untreated inherently flame resistance fabric.”

B) On the other hand there are statements indicating that a flame retardant is NOT needed in the claimed invention:

d) 3:4-5 “...wherein the finish imparts a property selected from the group consisting of: an antimicrobial agent, a soil repellent and a fluid repellent.” (no mention of flame retardant)

e) Examples 3, 4, 6 and 9 lack flame retardant, and yet pass the flammability test.

f) 13:13-16 “But, it is not a requirement for the present invention to require the addition of flame retardant to the desired chemical treatment in order for the treated fabric to have an equal flame resistance to the untreated inherently FR fibers.”

These two ideas contradict each other, and make the specification confusing.

7. Claims 23-24, 30-31, 33-34, 40 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject

Art Unit: 1762

matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Table 1 is not adequately defined. The meaning of the descriptors in “warp yarn” and “fill yarn” are not defined. Osy is not defined.

8. Claims 23-24, 30-31, 33-34 and 40 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of finishing an inherently flame retardant polyester fabric, does not reasonably provide enablement for any inherently flame retardant fabric. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

It appears from the specification and title that the claimed invention is restricted to polyester fabrics.

9. Claims 23-24, 30-31, 33-34, 40 and 42 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of treating fabric with a composition that contains flame retardant, as well another agent selected from antimicrobial, fluid or soil repellent, does not reasonably provide enablement for a composition that does not contain flame retardant. The specification does not enable any person skilled in the art to which

Art Unit: 1762

it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

It appears, at least from the statements in 6A) above, that flame retardant is required in the composition of the claimed invention.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 23-24, 30-31, 33-34, 40 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 42: there is no requirement that flame retardant be present in the composition, contrary to 6A) above. Flame retardant is only one of four agents that may be added.

b) Claim 42: it is not clear why fluid repellent and soil repellent (which are fluorochemicals [6:2]) are among the four agents that may be added, while line 4 of claim 42 requires a fluorochemical in the composition.

c) Claim 42: “and” should be added before “drying”.

d) In claims 30-31, 33-34 and 40, the examiner assumes "includes" to mean the same thing as "comprises".

e) Claim 40 contains the trademark/trade name Trevira CS. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an inherently flame resistant polyester and, accordingly, the identification/description is indefinite.

Specification

12. The use of the trademark such as Solpon on page 4, and many others, has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Drawings

13. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- references 12-15 of Figure 3 are not in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

14. Figure 1 does not appear to be a bedspread, as claimed in
Brief Description of the Drawings.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 1762

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 42 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ferziger et al (4526830).

‘830 teaches coating fiberglass fabric, which is inherently fire retardant (3:18-27), with a coating that has a bactericide and/or fungicide (4:44-60) and a fluorochemical such as polytetrafluoroethylene (4:9-18).

17. Claims 42, 24 and 30-31 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Porter et al (4690859).

‘859 teaches added a coating of an antimicrobial such as an aminosilane and a fluorocarbon (7:1-6), either as a top coating or the main coating (6:56-68), by padding (see Example 4), to inherently nonflammable fiberglass (1:47-68). Regarding claim 30, silanes are known as coupling agents and are known to form covalent bonds.

18. Claims 42, 23 and 40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 07-157977.

‘977 teaches applying a fluoropolymer waterproofing to a fire-resistant polyester (Trevira CS) (see Abstracts), thus meeting the limitations of claims 40 and 42. As a fire-resistant polyester, Trivera CS would inherently pass the NFPA 701 test.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 23-24 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferziger et al (4526830).

‘830 is applied here for the reasons given above.

‘830 does not explicitly teach that the fiberglass fabric passes the NFPA 701 test, but because the fiberglass fabric is inherently fire retardant (3:18-28), the fiberglass fabric of ‘830 would be expected to pass the test.

‘830 teaches that any conventional coating process may be used to apply the coating formulation to the fabric (6:3-4), but does not teach padding as in claim 24. But padding would be one of the conventional coating processes that ‘830 teaches.

‘830 teaches 0.5-2 parts of bactericide to 100 parts of the carrier (5:16-33), which appears to overlap with applicant’s claimed ranges.

21. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferziger et al (4526830) taken in view of White et al or Blehm et al (4842766).

‘830 is applied here for the reasons given above.

‘830 teaches applying a bacteriocide to the fabric, but does not teach that it is molecularly bound or an organosilane.

White teaches that a molecularly bound organosilane is used as an antimicrobial in the textile industry (p 2).

‘766 teaches that a silane such as 3-(trimethoxysilyl)-propyldimethyloctadecyl ammonium chloride may be used as an antimicrobial on fabric (see Example 5). Regarding claim 30, silanes are known as coupling agents, because they covalently bind to other substances.

It would have been obvious to one of ordinary skill in the art to have substituted the organosilanes of White or of ‘766 for the bacteriocide of ‘830 with the reasoned expectation of success.

22. Claim 23 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al (4690859).

‘859 is applied here for the reasons given above.

‘859 does not explicitly teach that the fiberglass fabric passes the NFPA 701 test, but because the fiberglass fabric is inherently fire retardant (1:47-68), the fiberglass fabric of ‘859 would be expected to pass the test.

‘859 teaches that the antimicrobial silane is added at 3% (see Example 4), which is somewhat higher than applicant’s claimed antimicrobial level, but it would have been obvious to one of ordinary skill in the art to have optimized the antimicrobial level through no more than routine experimentation.

23. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-157977.

‘977 is applied here for the reasons given above.

‘977 does not teach that the fluoropolymer is applied by padding, but it would have been obvious to one of ordinary skill in the art to have used a conventional coating method such as padding in the ‘977 process.

24. Claims 30-31 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-17977.

‘977 is applied here for the reasons given above.

‘977 does not teach the using an antimicrobial such as an organosilane.

White teaches that a molecularly bound organosilane is used as an antimicrobial in the textile industry (p 2).

‘766 teaches that a silane such as 3-(trimethoxysilyl)-propyldimethyloctadecyl ammonium chloride may be used as an antimicrobial on fabric at up to 5 weight % (see Example 5). Silanes are known as coupling agents, because they covalently bind to other substances.

It would have been obvious to one of ordinary skill in the art to have used the antimicrobial organosilanes of White or the antimicrobial silane of ‘830 in the treatment composition of ‘977 because of the need for an antimicrobial on a fabric exposed to the weather and wetness.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erma Cameron
ERMA CAMERON
PRIMARY EXAMINER

Erma Cameron
Primary Examiner
Art Unit 1762

August 19, 2005